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Land Economics and the Demographic Connection

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I. INTRODUCTION

My goal in this lecture is to regroup some widely understood characteristics of the closing decades of the Twentieth Century and to view them from an unfamiliar but ancient perspective. The introductory theme is that land still matters. But it matters in new ways, and with shifting degrees of intensity. The task of the land economist is to trace out these shifts, appraise them, and relate them to the larger social and cultural setting in which they occur. The goal is to improve our perception of the consequences of our actions and of the implicit policies and values that drive them.

A point of departure in pursuing this goal is to recognize that land economics is about power, its distribution and the institutions that govern its exercise. It follows that land economics is about people, for it is individuals acting alone, and through group action, that define land, give it value, and alter its use. It is fitting to open this discussion by recalling the words of Leonard Salter, a close friend of Ray Penn's, who warned us a half-century ago against "a tendency to

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concentrate attention on the area which is our laboratory rather than on the human relations which are our subject matter, and the development of those relations which are our problems" (quoted in Musbach and Johnson, 1941, p. 492.)

The focus of the discussion that follows is on major trends in the past half-century that have altered the role played by land in the American economy. After a brief look at the evolving significance of agricultural land, attention will shift to the non-farm component in contemporary land problems which is where this generation is recording its greatest impact. At the end of the First World War, the population of the United States was almost exactly half urban, half rural, and 30.6 percent lived on farms. Sixty years later, in 1988, the nation was 74 percent urban and only 2.0 percent lived on farms (USDA, 1973; Population Reference Bureau, 1988). This demographic fact dominates our economic and cultural life, and not least our attitudes toward land and our demands upon it.

II. AN OVERVIEW OF AGRICULTURAL LAND USE

In dollar value of products and services, agriculture is the dominant use of America's land. In acre terms, however, the 469 million acres of cropland enumerated in 1982 were only 20.7 percent of the total land area of 2,265 million acres for the 50 states. Grassland pasture and range comprised 597 million acres, or 26.3 percent, and forest land made up 655 million acres or 28.9 percent. The remaining 24 percent or 544 million acres included lands in transportation or recreation uses, urban areas,

other special uses, and marsh, swamp, desert and waste lands (Frey and Hexem, 1985).

Cropland planted or in summer fallow, in peak years, has rarely exceeded 80 percent of the area classified as cropland. In 1981 the 387 million planted or fallowed acres were 82.5 percent of total cropland acres. This can be regarded as the historical peak in national cropland capacity utilization.

A more interesting trend involves the acreage of cropland actually harvested. For the ten years, 1976-1985, harvested cropland averaged 334 million acres, slightly below the annual average of 336 million acres harvested in the ten years, 1911-1920. Since 1910, the maximum acreage harvested was 361 million acres in 1932 and the minimum was 286 million acres in 1969. With 1977 used as a base of 100, the index of total cropland acres used for crops was never above 102 and never below 87 in the 75 years from 1910 through 1984 (Frey and Hexem, 1985, pp. 26-27).

The remarkable nature of this relative stability is apparent if we remember that in this period corn production increased 2.7 times, wheat 2.95 times, and over 60 million acres were diverted to soybeans, a crop that was not even reported officially until 1924 (Raup, 1987A).

In this period, some cropland was abandoned, more was cleared, drained, and irrigated, and we began seriously to practice multiple cropping, primarily with wheat and soybeans in the Delta states and the Southeast. The brute fact remains: All of the increase in U.S. agricultural output in the past 75 years was achieved without any net increase in the area of harvested cropland. This parallels the experience in Western Europe since the end of the Second World War, where

agricultural output has roughly doubled, and the area of cropped land has actually declined. Since 1960/61, for example, wheat production doubled in the 12 countries now forming the EEC while the wheat area dropped 14 percent (USDA, 1987A, p. 20).

It is simplistic to conclude that land as a food base is of diminished importance. But it must be concluded that historic concerns about running out of land are misdirected. Our ability to maintain the flow of intellectual capital is the true substitute for land. This key to the preservation of the productive capacity of agricultural land is threatened by many defects in our institutional structure. One of the most threatening is a search for stability that has substituted rigidity for resiliency and robbed us of shock-absorbing capacity. This trend is the outgrowth of our attempts to avoid risk.

III. THE RISKS OF RISK REDUCTION

One of the legacies of the depression of the 1930's in the U.S. has been the transfer of risk from individuals to the state. This takes many forms, and only a few can be discussed here.

The evidence is clear that government-supported guarantees of bank and savings and loan deposits have fostered careless lending. With fear of a "run on the bank" removed, lending officials have taken risks they would never take if loss of depositor confidence were still a constraint. In savings and loan associations, this reduction of risk fed directly through the credit system into the real estate market, first for housing and more recently for commercial real estate lending. The effect was accelerated by tax reforms after 1980.

A similar process has been at work in farming. Commodity price supports dating from the 1930's removed one element of risk involved in farm production decisions. As a result, farmers took on more debt to expand, and embraced monoculture on a scale that they would not dare if the threat of product price collapse were real.

Social Security has resulted in a parallel response in household finance. The pressure on individuals to save for health reverses or for old age has been reduced. They can risk spending up to or beyond levels justified by current income, with the result that consumption expenditure takes precedence over savings and investment.

In each of these cases risk has been transferred from individuals to the state, which means to individuals as taxpayers. Risk, in short, has been socialized. One consequence is that the magnitude of risk is obscured and is more difficult to calculate. A false sense of confidence has been established, and when reverses do come their psychological impact is severe. Adjustments to change are best made at frequent intervals, in small steps. The socialization of risk raises the possibility that small corrections will be postponed until the need reaches crisis proportions.

Change, and its twin sister risk, are facts of life. The transfer or postponement of risk is not equivalent to its elimination. If risk cannot be appraised accurately by individuals, and is transferred to the state, then a greater intrusion by the state into the economic decisions of individuals is inevitable. The danger is that the machinery of state will be unable to evaluate risk, or to act promptly upon evaluation, and that exposure to risk will simply accumulate until there is an explosion.

The implication of this danger for land use is that the suppression of risk has fostered over-lending and over-building in commercial and residential real estate, and over-expansion in agriculture. The risk that has been removed or disguised in profit-and-loss calculations has been capitalized into the value of land and structures, both by businesses and households. As a result, contemporary U.S. real estate contains an element of fictitious value. This must eventually be squeezed out, and the process is well under way but far from completion. The collapse of farm land values after 1981 was the first major readjustment. The current difficulties of banks and savings and loan associations in Texas and California continue the process. More is to come.

This process of revaluing real estate to acknowledge real risk will affect the speed and extent of urban expansion, and the pace of housing construction and farm recapitalization. The effect on rural non-farm lands is likely to be especially sharp. One of the most powerful demands in an affluent society is for space. Congestion is one of the negative dimensions of urban life that is most difficult to tolerate. Attempts to escape urban congestion have been driving forces in the use of land around urban-industrial centers, and often in more remote rural and forested regions. This demand for a rural life style has been fostered by easy credit and a defective evaluation of risk. The corrective process will dampen this demand for non-farm residential and recreational uses of rural lands. It is unlikely to stop it, for reasons explored in the next section.

IV. THE SEPARATION AND RECOMBINATION OF HOME AND WORKPLACE

The separation of where people live from where they earn their living is one of the great transitional milestones in human history. The social fabric in developed industrial economies is still infused with behavior rules, social norms, and prescriptions for problem solutions that reflect a presumed coincidence of the residence and the workplace.

The industrial city involved a break in this connection. The growth of industrial labor forces in the 18th and 19th centuries required massive rural to urban migration, and the new migrants rarely owned their own homes. It had been presumed for two centuries that industrial workers did not have the mind-set that is characteristic of owners of landed property. In the Marxist creed, this presumption was incorporated into the definition of the working class: they were not property owners. The hallmark of the early industrial era was the separation of home and workplace.

A more recent step in the evolution of urban-industrial life has been the shift from rental to owner-occupied housing. The typical worker or employee in the U.S. today does not own tools nor have an ownership interest in the product or service produced, but home-ownership is the norm. In 1890, the home ownership rate among all households was 47.8 percent. This fell to 45.6 percent in 1920, rose to 48 percent in 1930, and fell again to 45.7 percent in 1940. The rise after 1940 was almost without interruption (Carliner, 1972, p. 116). By 1980, 65.6 percent of U.S. households lived in owner-occupied homes. This percentage slipped slightly in 1985, but with the entry of the baby-boom generation into the high ownership years, "the overall ownership rate will inexorably rise towards 70 percent or higher" (Diamond, 1986).

A perspective on the significance of data on home ownership participation rates is provided by estimates derived from census data of the total number of land owners in the United states. Wunderlich has estimated that there were in the mid-1970's a minimum of 60 million owners of land of all types, with the estimate ranging up to 77 million under alternative assumptions and definitions of ownership (Wunderlich, 1978, p. 8; Lewis, 1980, p. 38).

The New York Stock Exchange estimated in 1980 that the all-time peak in the number of individuals owning common stock in the U.S. was 30,850,000 in 1970. This declined to 25.2 million in 1975 and rose again to 29.8 million in 1980, with a median portfolio value in 1980 of $4,000 (New York Times, Dec. 9, 1980, p. 14). The increased role of mutual funds, institutional investors, and foreign investors since 1980 has made it difficult to derive subsequent estimates of stockholder participation but the number of individuals owning common stocks has almost surely declined.

Using the most conservative estimates, the number of individuals owning land in the United States is at least twice as great as the peak number of individuals ever owning common stocks. A more probable estimate is that, after the stock market collapse of October 1987, individuals owning land outnumbered individual owners of common stocks by three to one, or more. To the extent that the United States can be characterized as a democracy of property owners, it is real property and not stocks that dominates their property holdings. The fact that 64 percent of all households owned their own home in 1986 is remarkable, in view of the dilution in the definition of a "household" resulting from the rise of

single-person households since 1950. The current estimate is that residential property constitutes from 60 to 70 percent of the net worth of all U.S. households (Salvigsen, 1988). Home ownership has become the major instrument for saving and investment by households, and this role is increasing.

As of The Census of Agriculture in 1982, farm operators who owned all or a part of the land they farmed controlled 88.5 percent of the total area of land in farms. Only 11.5 percent of farmland was operated by tenants farming only land rented from others. In 1974, 1978, and 1982 this percentage was the lowest ever reported since statistics were first collected on farm tenancy in 1880 (Raup, 1987, pp. 274).

These data lend strength to a conclusion that a definitive characteristic of the American version of urban-industrial society in the closing decades of the 20th century is a dedication to the acquisition, maintenance and protection of ownership rights in farm and residential property. Land economics up to the Second World War was preoccupied with problems involving ownership, use, and control of agricultural land. Beginning in the 1920's and accelerating after the Second World War, the problem focus shifted to urban lands. Although there are no historical time series reporting the extent of land ownership in the United States before about 1880, the data we do have suggest that the proportion of the U.S. population with ownership rights in urban or rural land is currently at an all-time peak.

The ultimate expression of this demand for land in an urban-industrial culture has been the move to the suburbs, and beyond. This expression of the demand for residential space has been heavily weighted

with an associated demand for water areas, and for forests, or at least woodlands. Our cities exploded, and the value of land as landscape appreciated.

An inventory of the area that can be classified as "urban" is not an adequate measure of the resultant shift of rural land to urban uses. In terms of acres, the big impact of urbanization on land use is through the conversion of agricultural and forest land to rural residential or recreational use, at densities of settlement so low that the land is unlikely to be classified as "urban" for many years, if ever. We now have a growing category of land use that is "non-farm" but also "non-urban." This is associated with profound changes in both the time dimensions and the space dimensions of work.

Historically, and in most occupations, <u>when</u> a person worked has been intimately related to <u>where</u> the person worked and lived. The concept of a "factory" or an "office" required the concentration of labor and materials, enabling continuous production runs, and minimizing transport time. This dictated a clustering of land around the factory or office site, and created the commuting belt as the determinant of the spread and shape of cities.

This tie between when work is done - the temporal dimension - and where it is done - the spatial dimension - is now being relaxed. The revolution in communications and continued advances in transport permit greater decentralization of many types of productive activities. This enables residential amenities to play a larger role in determining <u>where</u> a labor force will live.

At the same time, the range of choices of when to work has been enlarged. Stereotyped concepts of the work day and the work week are being altered. Work in many professions and services can increasingly be done at a time most convenient for the worker, and at a location of the worker's choice. These changes alter fundamentally the determinants of rural land use, both farm and forest. They have already eroded the boundaries of cities, and have introduced demands for urban services into areas once considered distinctly rural.

Two streams in this transitional growth in rural residential land use are converging. One is the continuing expansion of the demand for second homes for seasonal use. The other is the accelerating demand for second homes for uses that compete with or even supplant the uses of the primary residence. In past usage, the term second home was largely a misnomer. They were not really homes, but safety-valves or escape hatches, to meliorate the congestion and frustration of city life or industrial jobs. Their distinguishing characteristic was a focus on leisure. What is relatively new in rural non-farm land uses is the shift from seasonal use to more nearly year-around use with an associated demand for year-around urban levels of services.

An even more recent development is the appearance of rural residences that really are second homes and whose location has been selected with both work and leisure in mind. This was always a feature of the "stock-broker" or "banker" belts around large financial centers, notably New York and Chicago in the U.S., and London, Paris, Zurich, or Geneva, in Europe. This pattern is now expanding to include more than an occupational group with favorable working hours. The modern two-home owner can increasingly

elect to work at home. An urban residence becomes a convenience but not a necessity, even for those with "urban" jobs.

This transition in residential choice is accelerated by the growth of the service economy. The combination of a residence and a place of employment is increasingly feasible for many types of professional work. The computer age promises to expand this possibility. The "office in the home" introduces an increasing element of choice in where to live, where to work and when to work. By recombining the home and the workplace, the computer age and the information revolution create demands for residential land in areas once thought to lie outside conventional urban commuting belts.

This greatly expands the potential for urban sprawl. Recent evidence from England suggests that the second-home commuting belt around London, once defined by two hours of travel time, is now expanding to include regions reachable with three hours of travel (The Economist, Aug. 13, 1988, p. 51). By this standard, major areas of rural farm and forested America would be included in the residential belts of our principal cities. By redefining work the revolutions in information and communications are redefining cities. This promises to be the dominant fact governing the role of the land economist in the 21st century. (Raup, 1988).

V. WASTE DISPOSAL AS A LAND USE TYPE

Among the types of land use that have escalated in importance with growing urbanization are toxic and hazardous waste disposal sites. Although sewage and garbage disposal problems are as old as civilization,

they have acquired new dimensions in the past half-century. While the industrial era that began in the 1880's was inducted as the age of steel, the century ending in the 1980's marks the triumph of the age of chemistry. One consequence is the generation of waste materials that, both in quantity and degree of toxicity, are unlike any wastes in the past.

Add to this the more easily dramatized but less ubiquitous problems of nuclear waste disposal and the result is a witches' brew of land use problems that date primarily from the Second World War. In an exhaustive enumeration of land use problems in the 1930's, the report of a task force on land classification to the National Resources Planning Board did not even list sites for waste disposal as a category of land use (National Resources Planning Board, 1941).

The situation is dramatically reversed today. Measured in terms of public awareness and citizen arousal, the search for waste disposal sites would probably rank at the top of any current list of intractable land use problems facing public authorities.

This problem set is peculiarly relevant to farm and ranch lands, and to forestry, since remoteness is perhaps the single most important attribute of a potential site for hazardous waste disposal. Almost by definition, the more remote the site the less is likely to be known about soil and groundwater conditions, or about the ecological consequences of specific types of toxicity, and the fewer outraged property owners there will be to object.

We can predict with virtual certainty that land economists in the future will be drawn into the controversy over waste disposal sites. In

addition to being the unpaid landscape gardeners for an urban populations' aesthetic consumption of rural space, farmers, ranchers, and foresters in the future will be prominent among the custodians of an urban culture's preferred solution to the NIMBY problem - Not In My Backyard. A future focus on land classification in terms of suitability for waste disposal seems assured, as an addition to the items to be included in the concept of multiple rural land use.

VI. A CLOSER LOOK AT THE MARKET FOR URBAN LAND

Of all of the markets that have been distorted in the U.S. by the phenomenal baby-boom, none has long-run consequences to match those in the housing market. With over 4 million births annually from 1954 through 1964, we are now just entering the era of peak housing demand. The percentage of the population in the under-25 age group peaked in 1974, the age group 25-34 peaked in 1986, and the age group 35-44 will peak in about 1995. The years from 1985 to 2000 will bridge an era of peak demand for housing that has no parallel, in terms of the increase from the decade of the 1970's and the potential decline in demand after about 2000. The resolution of this demand will shape our housing stock, and our cities, far into the 21st century.

The current problem is one of providing housing that will satisfy entry-level demand, and trading-up demand. This explains the recent (and now fading) popularity of condominiums, and the current concern over affordable housing. Demand is outrunning supply, and the most noticeable consequence is the pressure on building sites. Thirty years ago it was commonplace for a building lot to comprise 7 to 15 percent of the final

cost of a single-family house. This rose to the 10 to 20 percent range by the 1970's and to the 15 to 30 percent range in the 1980's. It is no longer remarkable in high-amenity or high-growth areas for a building site to approach and exceed 40 percent of the final cost of a single family home. The relative price of urban land is rising.

The result of smaller households, higher land costs, and a peak demand for entry-level housing has been to generate a stock of relatively small-scale housing units. These have been built at density levels that are tolerable for childless couples, or families with small children, but are quickly outgrown as children age.

This is the current situation, and the origin of rising concern about the mis-match of housing demand and supply. The question of affordable housing focuses this concern on the segment of the market that is characterized by brokers as the sector covering the transition from "start-up" buyers to "trade-up" buyers. The initial surge of baby-boom demand generated a response in the form of housing that was suitable for start-up or first time buyers. This, in turn, was followed by a drop in demand that was as dramatic in its decline as was the original explosive rise. From the peak of births of 4,308,000 in 1957 the drop was to 3,137,000 births in 1973, or a decline of 27.2 percent in 16 years. This means that the peak population of those 30 years old occurred in 1987, and their numbers drop rapidly after 1990.

From peak to trough, and assuming stable economic conditions, there will be a drop of at least one-fourth by the end of the 1990's in the number of replacement buyers who can buy the start-up homes of the households that are ready to trade-up. The resultant downward pressure on

the resale market prices of smaller start-up homes erodes the equity of the peak baby-boomers, who are ready to trade up. They can find themselves stuck in the housing market queue.

The depth of this baby-boom trap in the housing market is made worse if the prospective trade-up buyers face a shortage of vacancies in the home-size or location classes to which they aspire, and a shortage of buyers for their start-up homes. The sharply cyclical nature of the baby boom guarantees a period in which the demand for trade-up housing drives up the price of the available stock, and the excess supply of entry-level housing drives down the prices of this class of residences. We are now entering this period.

A simulation study of the potential effects of this one-time bulge in housing demand has shown that, under the worst-case scenario of no buyer for your house and no place to move, those stuck in the housing market could equal half of all start-up households over the course of a decade, with the worst shortages of trade-up homes occurring after 1994. Under more likely assumptions of inter-regional mobility and some supply response in the form of new construction of trade-up level housing, the major cause of being stuck becomes the lack of buyers for starter homes. This could affect one-third of the starter households over the decade used in the simulation (Peacock, 1988).

This underlines the potential for extreme volatility in the housing market. A variant of this theme is provided by a brief look at the prospects at the exit instead of the entry level of the market. Recent warnings of a prospective fall in housing prices have multiplied, and increased in stridency (Barrons, August 22, 1988). This could be

especially costly for the elderly. Individuals born in the period from 1915 to 1920 will exhaust their actuarial life expectancy of 75 years in the period from 1990 to 1995. They were the age class that graduated from high school in the depths of the depression of the 1930's. If they have succeeded in acquiring some equity in housing over the intervening years, a fall in housing prices could pitch them into a second depression at the stage in their life cycle at which they should begin to disinvest in housing. The search for security and the postponement of risk, discussed in section III above, has unquestionably created an artificial element of value in land, and not least in residential land. It will be ironic if the process of wringing out this excess value falls with particular force upon the generation that bore the brunt of missed or postponed opportunities in the 1930's and provided the support base in human capital during the Second World War.

VII. INTERNATIONAL LAND USE POLICIES AND THE STRUGGLE FOR FOOD SECURITY

To this point the discussion has centered on the redefinition of land problems that is occurring in the United States, and in similarly urbanized and industrialized economies. In the jargon of development economics, these highly developed and industrialized countries are grouped together as the OECD countries, including Western Europe, Canada, the United States, Australia, New Zealand, and Japan. This grouping glosses over one crucial distinction: Are they food surplus producer, or must they depend on food imports?

The relevance of the question arises from the fact that the OECD group includes both the largest food exporters in the world, and the

largest food importers. This groups of countries dominates world trade in agricultural products. Disputes among them over trade policies have provided the raw material for international trade negotiations for the past half-century. Since the Second World War, these negotiations have been conducted under the auspices of the General Agreement on Tariffs and Trade, or GATT. Seven rounds of negotiations have had some success in lowering trade barriers, and the eighth or "Uruguay Round" is now taking place.

Unlike previous rounds, the subject of trade barriers that protect agriculture has been placed squarely on the agenda of the Uruguay round. This raises a host of problems that are beyond the scope of this discussion, but one problem in particular has the explosive potential to dominate all others. This is the inclusion in the agenda, strongly supported by the United States, of a stated goal of removing all internal subsidies to agriculture that prevent world market prices from guiding domestic land use decisions in the member countries.

Although the United States has many subsidy program in agriculture that depend on the exclusion of imports, the major targets of attempts to remove agricultural subsidies are the European Economic Community (EEC), and Japan -- the EEC because it exports too much and Japan because it imports too little. High internal prices in the EEC have stimulated agricultural production so successfully that the resulting surpluses can only be disposed of by subsidizing their export at the expense of other exporting countries. Japanese agricultural prices have been supported at levels so far above world market prices that agricultural land prices play

a major role in driving up urban land prices and distorting urban growth patterns.

Remove these subsidies, the argument runs, and trade will lead to more rational land use decisions. The economic arguments in support of this position are overwhelming, but they confront a disturbing political reality: Demagogic leaders in Germany and Japan were able to lead their countries into the Second World War by playing on fears of land shortages and food scarcities.

The admittedly uneconomic levels of agricultural prices in the EEC and Japan have so stimulated domestic production that no contemporary political leader can raise a realistic specter of food shortages. Removing the subsidies that have generated this uneconomic production could lay a foundation on which a new generation of demagogic leaders could rekindle xenophobic fears.

It is difficult for Americans to appreciate the explosive political potential that can be created by a fear of running out of food. Boston experienced this briefly during the truckers' strike, and Los Angeles contemplated the prospect of food riots during the OPEC embargo, but these experiences were quickly forgotten.

In judging the cost of subsidized protection for agriculture in densely populated countries or regions, the economic costs cannot be offset by the economic benefits of freer trade, if a potential for food dependency is the result. Some minimum levels of self-sufficiency in food may well be the prerequisite for political stability in an urbanized world. Representatives of the United States should keep this clearly in mind in negotiations in the Uruguay round. The rational use and control

of a nation's land depends on calculations of risk that transcend economic theory. This lesson from two World Wars should not be forgotten.

VIII. A DEMOGRAPHIC PERSPECTIVE ON THE LIFE CYCLES OF CORPORATIONS, FARMS, AND INSTITUTIONS IN THE MIDDLE WEST

In the life cycle of business corporations, many are now passing into the hands of the third or fourth generation of owners. The grandchildren and great grandchildren have little direct tie to the original founders and owners. Many of them have other things they want to do with the money value of their stock, and want out. They are ripe for takeover bids. This is a major part of the explanation for the current wave of mercers, sell-offs and buy-outs.

Something like this is also happening in the Midwestern rural economy. Pioneering great-grandparents may have been romantic characters but their grip on their great-grandchildren is weakening. Current heirs are likely to sell out if a good opportunity arises. The consolidation of corporations thus has a parallel in the consolidation of farms. Both trends in the Middle West are a reflection of the speed with which the region from the Ohio-Pennsylvania border to the Rocky Mountains was settled.

The structure of private and public institutions in this region was largely put in place in about 75 years, from 1815 to 1890. State and local units of government, school districts, postal routes, railroads and road systems, church congregations, bank service territories, and many more forms of the institutional infrastructure date from this era. The closing of the frontier meant to Frederick Jackson Turner the

disappearance of free land and the blocking in of unsettled territories. It was also a closing of a frontier of institution-building.

The creation of the basic institutional structure of the Middle West within the life span of an individual meant that these institutions would age at about the same rate. They went up together, and they are growing old together. This gives a cyclical character to many of the problems of institutional reform and adjustment in the Middle West. The region is certainly not homogenous, but it is united by the scope of its institutional history to a degree that sets it apart from the rest of the United States.

This is especially true of the institutional structure supporting land tenure and land uses. It was created to reflect the era of railroads, not the era of superhighways and jet air transport. It was designed to serve sectors focused on the production of goods, in an era in which the rural population was overwhelmingly engaged in farming, forestry, or mining.

Today the rural population is predominantly non-farm, and the demands on local institutions by rural land users are primarily urban in character. Land in this region is increasingly being managed under decision rules that reflect a primary status as a producer of services as well as of goods.

A new land classification is needed, setting out those areas in which the major land uses serve residential, recreational, and amenity goals. These are associated with a need for reform in the social, political, and economic structures of communities to support the massive decentralization of cities that is now technically possible. The most rapidly expanding challenge to the land economist in the 21st century seems likely to be

primarily in the study of land as a producer of services, and only secondarily in its role as a producer of commodities.

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